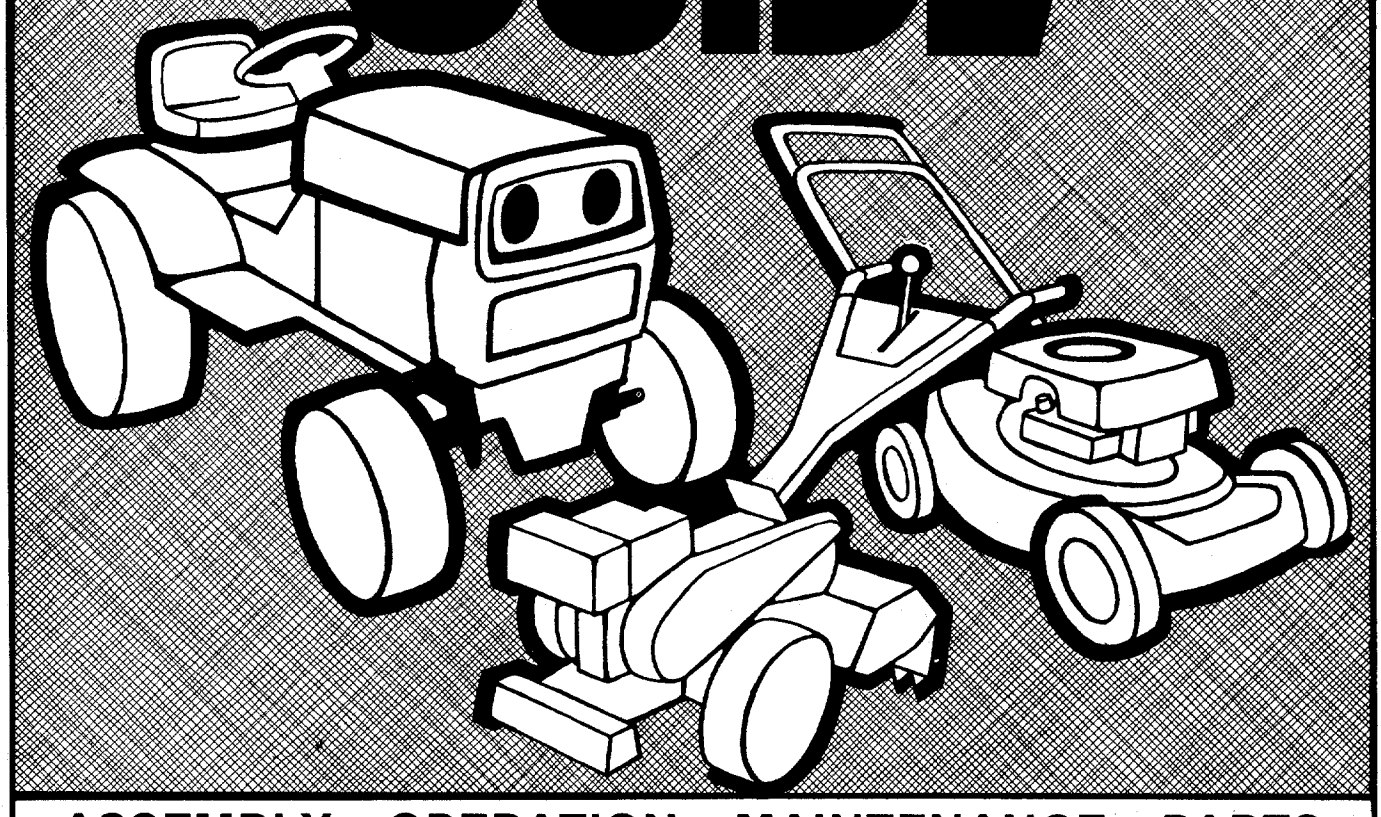
OWNER'S GUIDE



ASSEMBLY • OPERATION • MAINTENANCE • PARTS

20″ REAR DISCHARGE ROTARY MOWERS

Important:

Read Safety Rules and Instructions Carefully

Thank you for purchasing an American built product.

Model Numbers

121-304A
121-306A

PRINTED IN U.S.A.

FORM NO. 770-1009

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LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

WARNING

TO PURCHASERS
OF INTERNAL COMBUSTION ENGINE EQUIPPED
MACHINERY OR DEVICES IN THE STATE OF CALIFORNIA

The equipment which you have just purchased does not have a spark arrester. If this equipment is used on any forest covered land, brush covered land, or grass covered unimproved land in the State of California, before using on such land, the California law requires that a spark arrester be provided. In addition, spark arrester is required by law to be in effective working order. The spark arrester must be attached to the exhaust system and comply with Section 4442 of the California Public Resources Code.

WARNING

To reduce the potential for any injury, comply with the following safety instructions. Failure to comply with the instructions may result in personal injury.

SAFE OPERATION PRACTICES FOR WALK-BEHIND MOWERS

TRAINING

1. It is suggested that this manual be read in its entirety before attempting to assemble or operate this unit. Keep this manual in a safe place for future reference and for ordering replacement parts.
2. Your rotary mower is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times.
3. Read this Owner's Manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
4. Never allow children to operate a power mower. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
5. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidently thrown by the mower in any direction and cause injury.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones and other foreign objects which could be picked up and thrown by the mower in any direction and cause injury.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
3. Do not wear loose fitting clothing that could get caught on the mower.
4. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, while the engine is running, or while the engine is still hot. Wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
5. Disengage the self-propelled mechanism or drive clutch on units so equipped before starting the engine.
6. Never attempt to make a wheel or cutting height adjustment while the engine is running.
7. Mow only in daylight or in good artificial light.
8. Never operate the equipment in wet grass. Always be sure of your footing. Keep a firm hold on the handle and walk, never run.

OPERATION

1. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
2. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade can cause injury.
3. Stop the blade when crossing gravel drives, walks or roads.
4. After striking a foreign object, stop the engine, remove the wire from the spark plug, and thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower.
5. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
6. Stop the engine whenever you leave the mower, before cleaning the mower housing, and when making any repairs or inspections.
7. When cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.
8. Before attempting to unclog the mower or discharge chute, stop the engine and be sure the blade has stopped completely. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
9. Do not run the engine indoors.
10. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging chute.
11. Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
12. Always disconnect electric mowers (line operated) before cleaning, repairing or adjusting.
13. Never operate mower without proper guards, plates or other safety protective devices in place.
14. Keep washout ports and other mower-housing service openings closed when mowing.
15. **DO NOT OPERATE** this mower with the chute doors open, unless the complete grass catcher is properly mounted on the mower.

MAINTENANCE AND STORAGE

1. Check the blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Never store the equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
4. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.
5. Check the grass catcher bag frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.

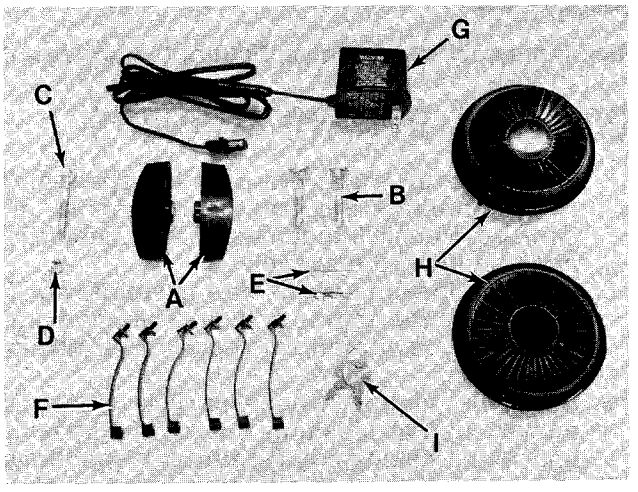


FIGURE 1.

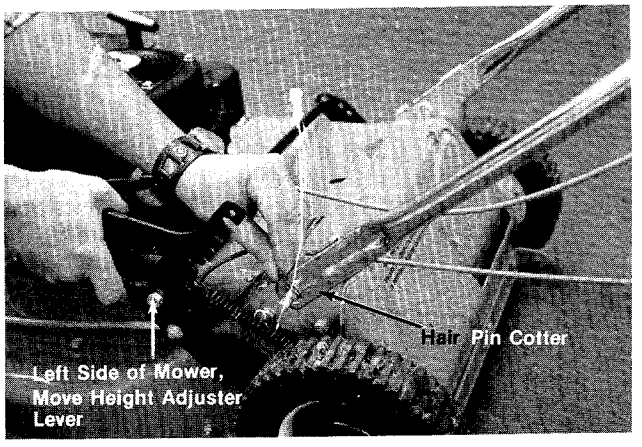


FIGURE 2.

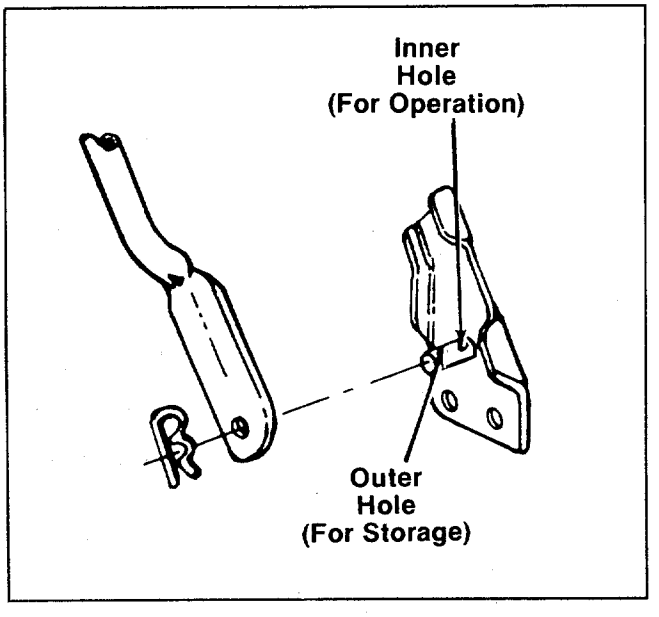


FIGURE 3.

ASSEMBLY INSTRUCTIONS

NOTE

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and engine oil recommendations.

Contents of Hardware Pack:

A (2) Hand Knobs
B (2) Curved Carriage Bolts 5/16-18 x 1.75" Long
C (1) Hex Bolt ¼-20 x 1.50" Long
D (1) Hex Center Lock Nut ¼-20 Thd.
E (2) Hairpin Cotters
F (4) Cable Ties (304)
(6) Cable Ties (306)
G (1) Battery Charger (306 Only)
H (2) Hub Caps
I (2) Ignition Keys (306 Only)

NOTE

Reference to left or right side of machine is from operators's position at the handle facing forward.

NOTE

Reference to electric start is for Model 12306-1 only.

1. Remove the lawn mower, loose parts, hardware pack and literature from the carton. Make certain all parts and literature have been removed before the carton is discarded.
2. Extend the throttle control which is attached to the mower and place on the floor. Be careful not to bend or kink control wire.
3. Place lower handle in position over weld pins in handle mount brackets on deck. On left side of mower, height adjustment lever must be moved out of the way. Secure by placing two hairpin cotters (E) in inner hole on weld pins. See figure 2.

NOTE

It may be necessary to bend the ends of the lower handle inward slightly to assure a snug fit against the bracket mounting area.

NOTE

There are two (2) holes in the handle mount brackets. Place hairpin cotter in the inner hole for operation. The outer hole is for storage. See figure 3.

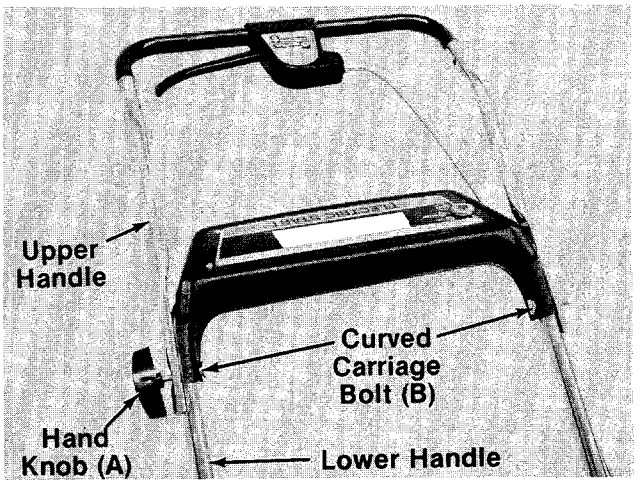


FIGURE 4.

4. There are two height positions for the handle. Place upper handle with the clutch control attached in position over lower handle. On Model 306 only, hold the handle panel in place. Select hole for either high or low position. Refer to figure 21. Secure with two curved carriage bolts (B) and handle knobs (A) as shown in figure 4. The knobs must be to the outside of the handle.

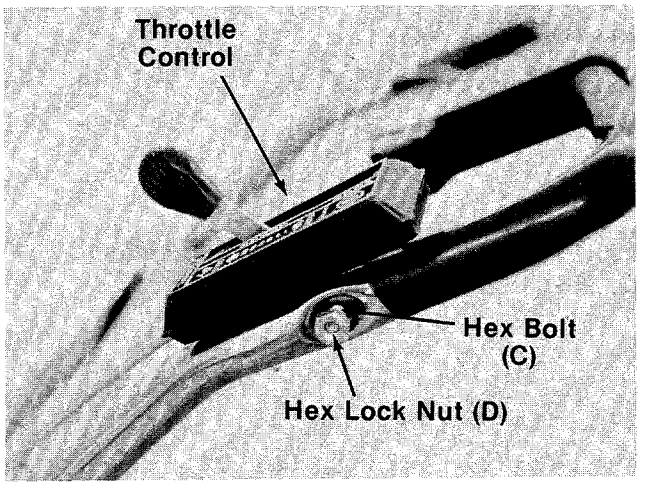


FIGURE 5.

5. Place the throttle control in position on the left hand side of upper handle. Secure with hex bolt (C) and hex lock nut (D) provided. See figure 5.

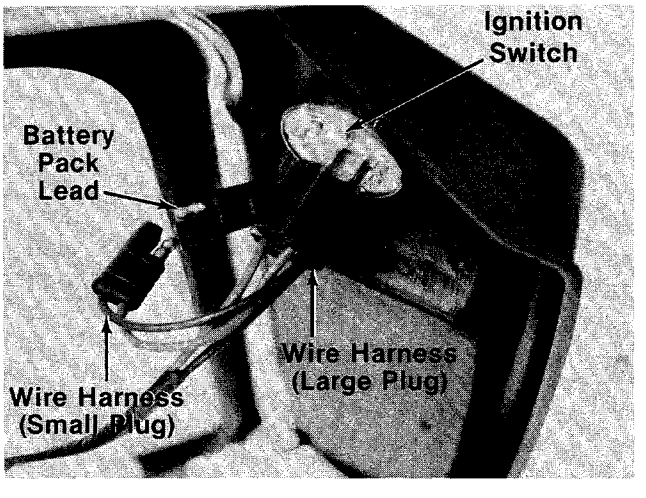


FIGURE 6.

6. **Model 306 only.** Plug the wire harness (large plug) into the ignition switch and plug the (small plug) wire harness into the battery pack lead. See figure 6.

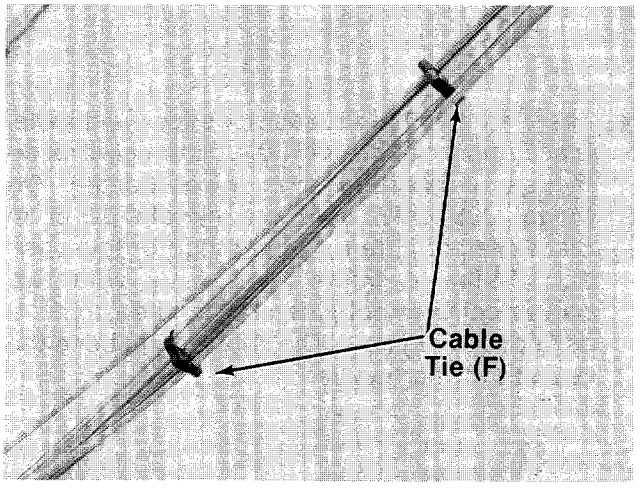


FIGURE 7.

7. Secure throttle control cable, wire harness (306 only) and clutch control cable to handle with cable ties (F) provided. See figure 7.
8. Check **all** nuts and bolts for correct tightness.
9. Install the front wheel hub caps (H) on wheels.

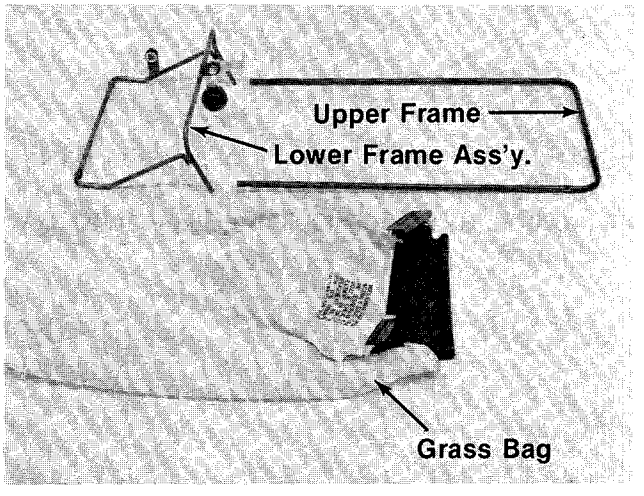


FIGURE 8.

ASSEMBLY
Grass Catcher

The grass catcher is partially assembled. See figure 8.

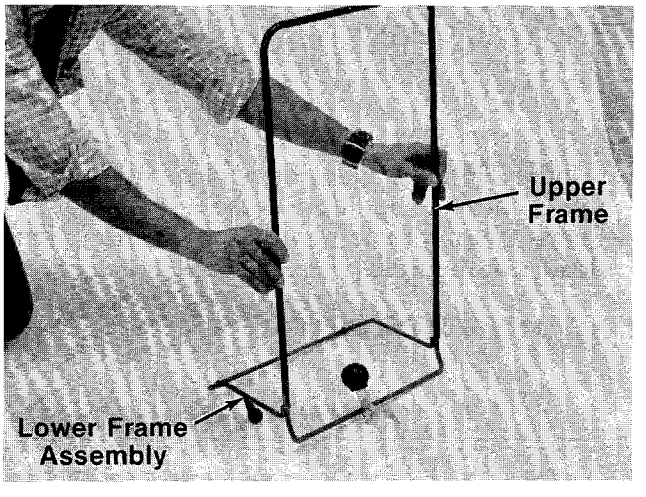


FIGURE 9.

1. Place the upper frame over the lower frame assembly as shown in figure 9.

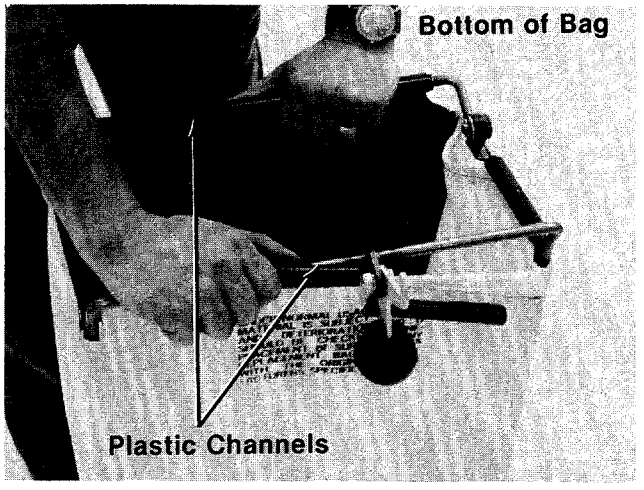


FIGURE 10.

2. Place bag over frame (black plastic side is the bottom of bag). Upper frame goes to the top of bag.
3. Secure bag to frame by slipping plastic channels on bag over frame. See figure 10.

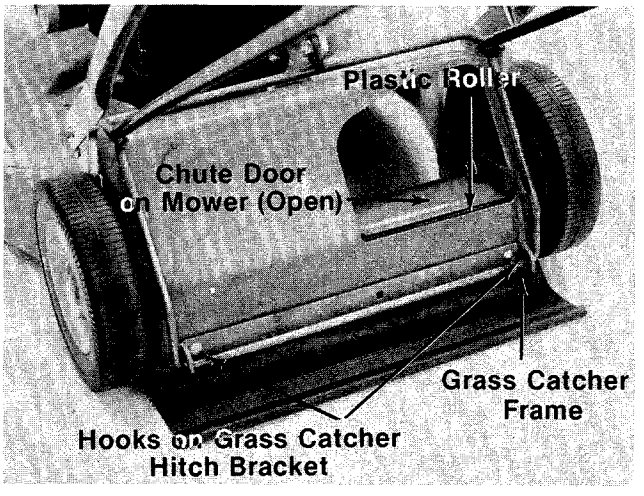


FIGURE 11.

TO ATTACH BAG TO MOWER

WARNING

DO NOT operate the mower with the chute door open unless the complete grass catcher is properly mounted on the mower.

1. Attach the grass catcher frame to grass catcher hitch bracket on rear of the mower by hooking grass catcher into hooks on grass catcher hitch bracket. See figure 11.
2. Lift the rear of grass catcher up. The roller on the grass catcher will push the chute door on the mower open. See figue 11.

NOTE

Figure 10 is shown with the chute door open for photo clarity only.

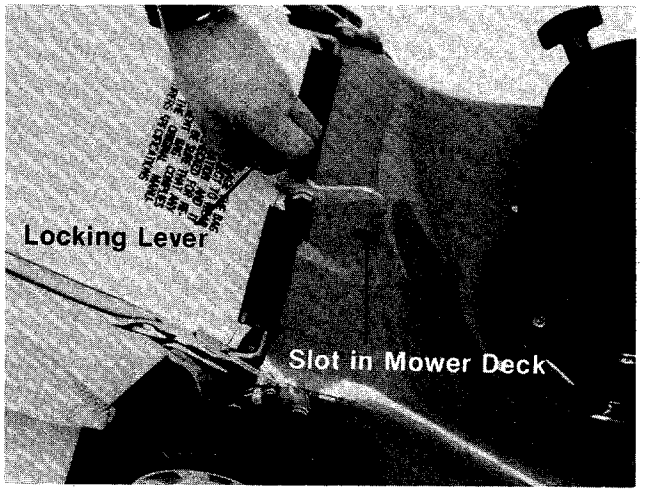


FIGURE 12.

3. Move the locking lever forward and hook in slot on mower. See figures 12 and 13.

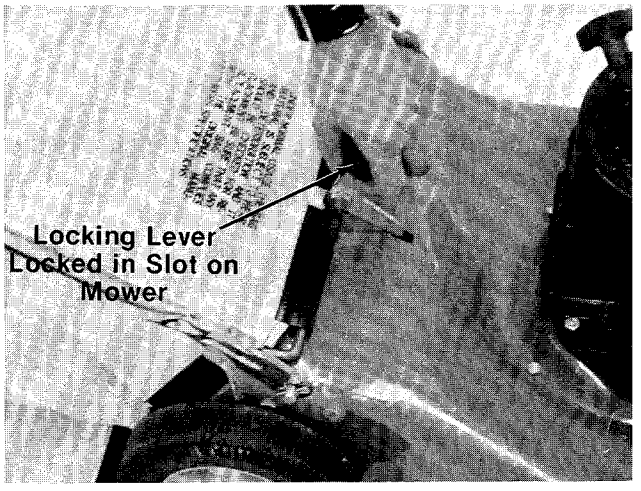


FIGURE 13.

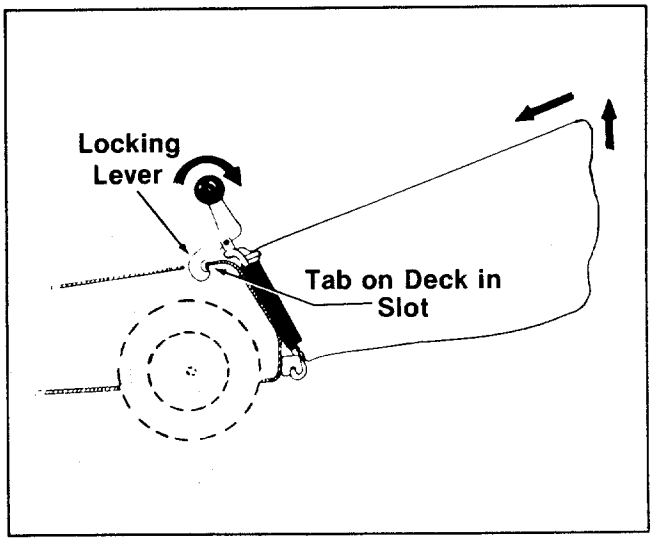


FIGURE 14.

TO REMOVE GRASS CATCHER

1. To remove the grass catcher, lift the rear of the grass catcher, push forward and unhook locking lever. See figure 14.
2. Lift off grass catcher.

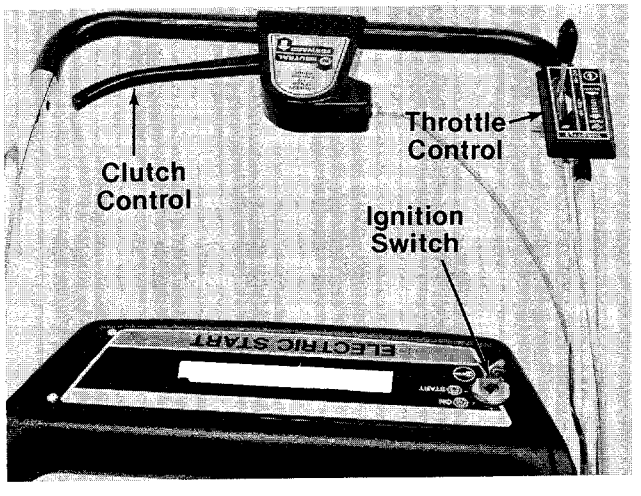


FIGURE 15.

CONTROLS

THROTTLE CONTROL

The throttle control is located on the left side of the handle. It is used to regulate the engine speed and to **STOP** the engine. See figure 15.

CLUTCH CONTROL

Squeezing the clutch control engages the drive mechanism to the rear wheels. Releasing the clutch control stops the rear wheels from driving. Release the clutch control to slow down when negotiating an obstacle, making a turn or stopping. See figure 15.

WARNING

The blade continues to rotate when the clutch is released.

IGNITION SWITCH (Model 12306-1 Only)
The ignition switch is located on the left hand side of handle panel. It is used for **STARTING ONLY.** See figure 15.

OPERATION

DO NOT OPERATE THIS MOWER WITH THE CHUTE DOORS OPEN, UNLESS THE COMPLETE GRASSCATCHER IS PROPERLY MOUNTED ON THE MOWER.

FIGURE 16.

Keep hands and feet away from the chute area on cutting deck. See figure 16.

NOTE

For shipping purposes your mower is set with the wheels in a low cutting height position. For best results, raise the cutting position until it is determined which height is best for your lawn. See adjustment section.

BEFORE STARTING

1. **Model 12306-1 Only (Electric Start)**—The battery pack must be charged a minimum of 16 hours for the first time and not more than 20 hours.

NOTE

Only use battery charger provided with mower.

A. Unplug the wire harness from the battery pack. See figure 17.

B. Always connect charger lead to battery pack lead before inserting battery charger plug into household outlet.

C. After charging, disconnect battery charger plug from household outlet first.

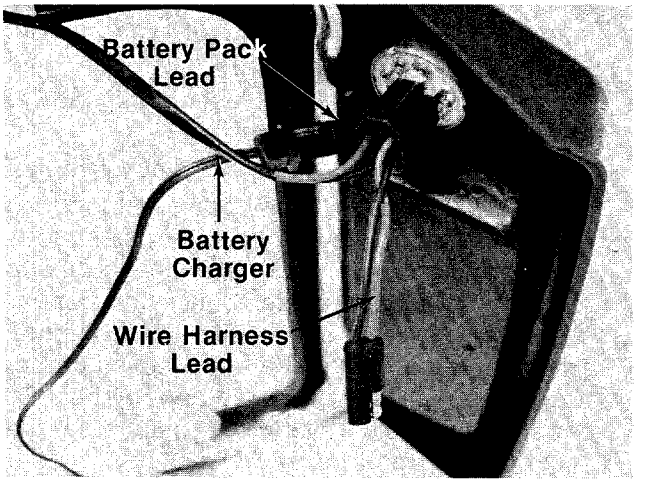


FIGURE 17.

WARNING

If battery pack is removed from handle panel for replacement only, **DO NOT** separate the batteries for any reason. Dispose of batteries properly.

DO NOT put batteries in fire or mutilate; may burst or release toxic materials, electrolyte contains sulfuric acid. **DO NOT** short circuit; may cause burns.

When replacing battery pack in handle panel, battery pack must be positioned with the positive terminal to left hand side and the negative terminal to the right hand side of panel. See figure 18. Replacing the battery pack incorrectly will cause serious damage.

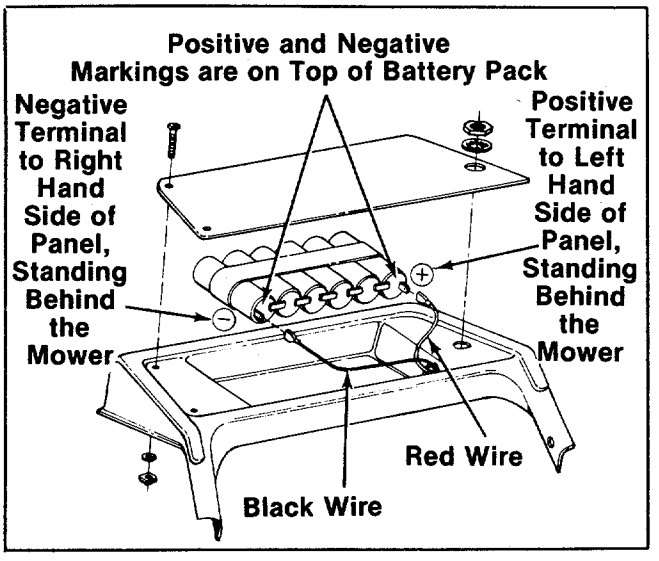

Positive and Negative
Markings are on Top of Battery Pack
Negative Terminal to Right Hand Side of Panel, Standing Behind the Mower
Positive Terminal to Left Hand Side of Panel, Standing Behind the Mower
Red Wire
Black Wire

FIGURE 18.

2. Before each use, check for proper clutch operation by performing the following before starting the engine:

   With the clutch control released, push mower forward, it should move freely.

   Pull mower backward. It should move freely.

   If it does not and the rear wheels tend to lock up, the clutch may not be releasing completely. Do not attempt to start the engine until corrections have been made. Check the control cable for severe bend, kinks and binding, grass build-up in the pulley groove, proper positioning of the pulley scraper finger. Be certain the cable housing is secure in the socket on the belt cover.

   Correct and adjust as required. See adjustment section. Test again.

3. Check to see that the handle is in the operating detent in the brackets on the deck, and the upstop projections restrict the handle from moving up and forward. If necessary, remove the left side from the mounting pin on the deck bracket. Push inward to decrease the spacing between the two sides of the handle until it is slightly less than the spacing of the deck brackets. Reinstall over the mounting pin and secure the hairpin cotter in the inner holes.

4. Fill sump with oil, using a high quality detergent oil classified "For Service SC, SD, SE or MS." Use SAE 30, SAE 10W-30 or SAE 10W-40 viscosity grade oil. Nothing should be added to the recommended oil.

   Place engine level. Remove oil dipstick. Fill to full mark on dipstick. Do not overfill. Pour slowly. Capacity 1¼ pints.

5. Fill fuel tank, using clean, fresh, leaded **regular** grade automotive gasoline. Fill tank completely.

   DO NOT MIX OIL WITH GASOLINE.

TO START ENGINE

Model 12304-1

1. Move throttle control lever to "START" position.
2. Place foot on the left side of the deck and hold handle to prevent tipping the unit. Grasp starter handle and pull out rapidly. Return it slowly to the engine. Repeat if necessary.

NOTE

This engine features a unique automatic choke. In case of flooding, move control to "STOP" and pull starter six times. Then move control to "START" position and start engine. If engine continues to flood, rotate the carburetor needle valve 1/8 turn clockwise to obtain a leaner mixture. See Carburetor Adjustment on page 12.

Model 12306-1 (Electric Start)

1. Move throttle control lever to "START" position.
2. Turn ignition key to "START" position. (If the unit moves forward when clutch control is in the "NEUTRAL" position, move throttle control to "STOP".) Refer to clutch control adjustments on page 11.

This mower is designed to be operated at full throttle to give you the best cut and do the most effective job of bagging the cut grass.

TO STOP ENGINE

1. Move throttle control lever to "STOP" position. On electric start model, turn ignition key to "OFF" position and remove the key.
2. Remove spark plug wire from spark plug and ground to prevent accidental starting while equipment is unattended.

Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. For best results and to insure more even grass distribution, do not mow when lawn is excessively wet.

IMPORTANT

After striking a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

ADJUSTMENTS

CAUTION

Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

CUTTING HEIGHT

The mower is equipped with five different cutting heights. Adjustment is made by moving the height adjustment lever to desired position. Squeeze the height adjustment levers together and move lever up or down. See figure 19.

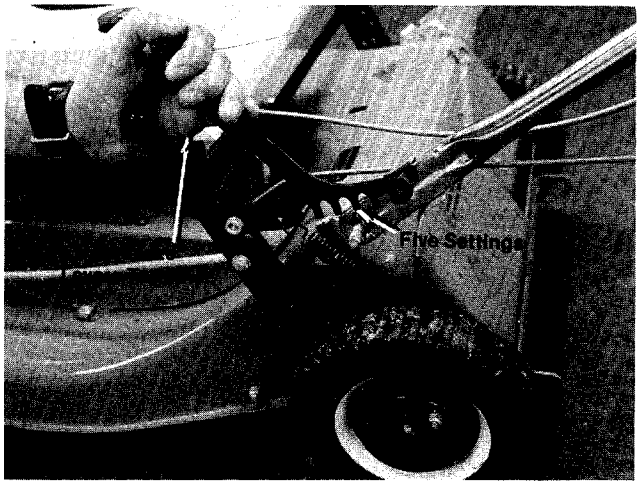


FIGURE 19.

CLUTCH CONTROL ADJUSTMENT

1. If the unit does not self-propel when the clutch control is engaged, loosen jam nut and back off two or three threads. Thread the barrel nut on end of control cable outward two or three threads. Retighten jam nut and retest. See figure 20.
2. If your unit moves forward in the "NEUTRAL" position, loosen jam nut and back off two or three threads. Thread the barrel nut on end of control cable inward two or three threads. Retighten jam nut and retest. Unit should not move forward in "NEUTRAL" position. See figure 20.

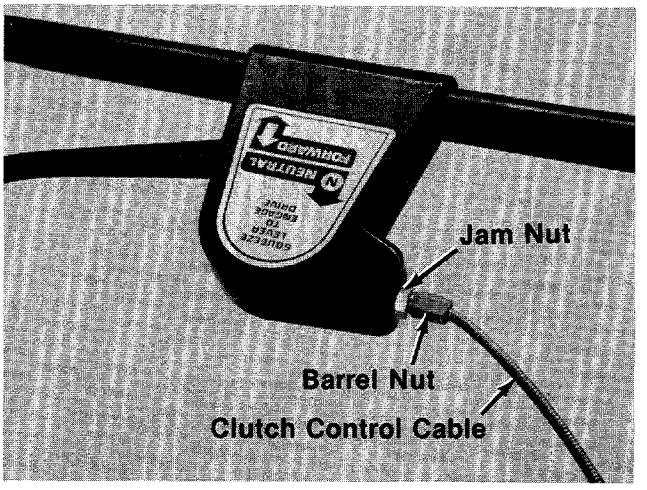


FIGURE 20.

THROTTLE

If adjustment becomes necessary, the throttle control wire assembly can be reset as follows:

1. Loosen, but do not remove, the screw securing throttle control wire assembly at engine.
2. Move throttle control lever on handle to "FAST" position.
3. Move lever to which control wire is fastened at engine to full open position. Retighten screw to secure throttle control wire assembly.

HANDLE POSITION

The upper handle can be adjusted to a high or low position. The operator of the lawn mower can easily adjust the handle position by unscrewing the two knobs, removing the two bolts and reassembling in the other position. No tools are necessary to make this adjustment. See figure 21.

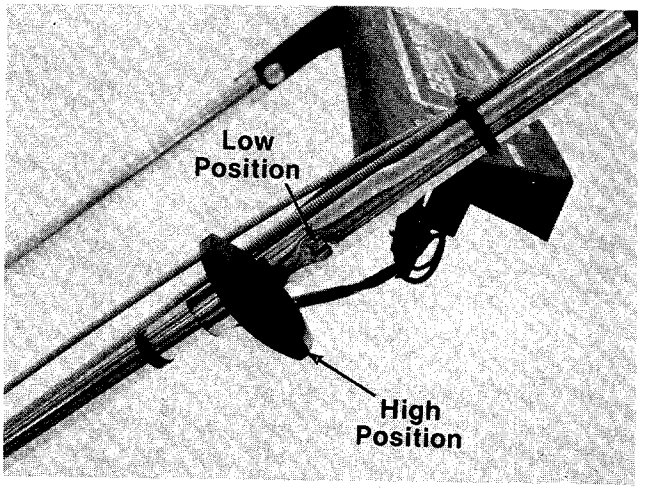


FIGURE 21.

WARNING

If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

CARBURETOR ADJUSTMENTS (See figure 22)

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load.

All carburetor adjustments should be made with the air cleaner on engine. Air cleaner mounting screw must be in carburetor when engine is run. Best adjustment is made with a fuel tank half full of gasoline.

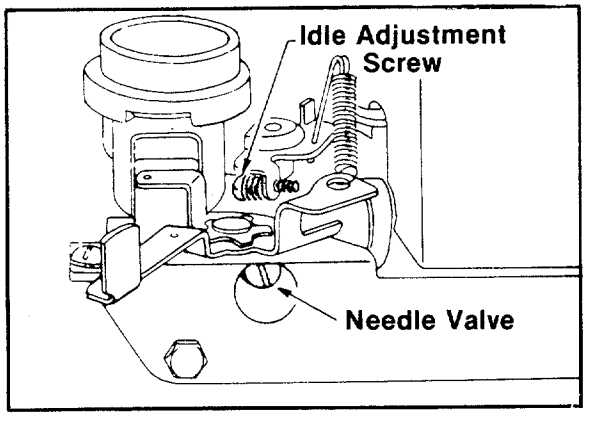


FIGURE 22.

To Adjust Carburetor:

1. Start engine and run long enough to warm it to operating temperature.

   If engine is out of adjustment so that it will not start, close the needle valve by turning it clockwise. Then open needle valve 1½ turns counterclockwise.

2. Move engine control to run engine at normal operating speed.
   a. Turn needle valve in clockwise until engine starts to lose speed (lean mixture).
   b. Then slowly turn needle valve out counterclockwise past the point of smoothest operation until engine just begins to run unevenly (rich mixture).
   c. Turn needle valve back in clockwise very slowly till engine runs evenly.
   d. Final adjustment of the needle valve should be slightly to the rich side (turn counterclockwise) of the mid-point.
3. Move engine control to "SLOW". Turn idle adjusting screw until a fast idle is obtained (1750 R.P.M.).
4. To check adjustment, move engine control from "SLOW" to "FAST" speed. Engine should accelerate smoothly. If engine tends to stall or die out, increase idle speed or readjust carburetor, usually to a slightly richer mixture.

LUBRICATION

IMPORTANT

Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

Wheels—Each front wheel has two ball bearings that require periodic lubrication. Place a few drops of light oil on each bearing at the start of each mowing season and again every 30 days. Rear wheel bearings are of self-lubricating Fortiflex. They require no lubrication. Also, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

Engine—Follow engine manual for lubrication instructions.

Throttle—Periodically lubricate throttle control lever and throttle wire assembly with a few drops of light oil for ease of operation.

Chain—To lubricate the chain, remove the master link and chain. Soak the chain in kerosene or a solvent, and let it air dry. Wipe the chain with a rag saturated with SAE 30 oil. Reassemble the chain to the sprockets. Closed end of the master link clip should face in direction of chain travel.

If the rotary mower is operated in a sandy area, the chain should not be lubricated. Excessive oil on a chain will collect dirt and cause excessive wear on the chain and sprockets.

Discharge Chute Door Mechanism—The torsion spring and pivot point should be lubricated periodically with light oil to prevent any rust or binding. Door must work freely.

MAINTENANCE

CUTTING BLADE

A. Removal for Sharpening or Replacement

WARNING

Be sure to disconnect and ground the spark plug wire before working on the cutting blade to prevent accidental engine starting.

1. Remove the large bolt and lock washer which holds the blade and adapter to the engine crankshaft. See figure 23.
2. Remove the blade and adapter from the crankshaft. Be careful not to lose the key on the crankshaft.
3. If the blade or blade adapter needs replacing, remove the two small bolts, lock washers and nuts which hold the blade to the adapter.

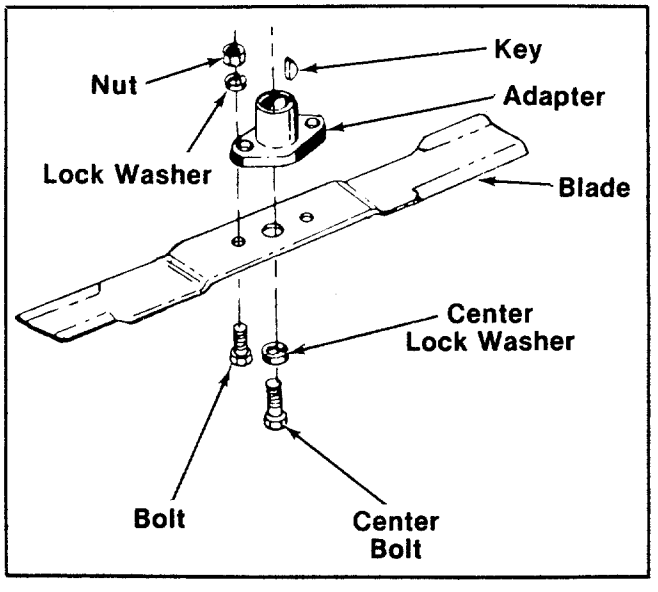


FIGURE 23.

B. Sharpening

Remove the cutting blade by following the directions of the preceding section.

When sharpening the blade, follow the original angle of grind as a guide. It is **extremely important** that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the mower.

The blade can be tested for balance by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly. See figure 24.

NOTE

It is recommended that the blade always be removed from the adapter for the best test of balance.

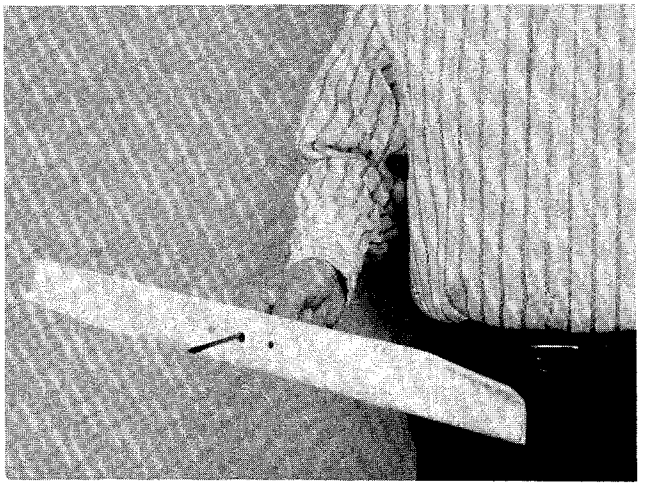


FIGURE 24.

C. Reassembly

Before reassembling the blade and the blade adapter to the unit, lubricate the engine crankshaft and the inner surface of the blade adapter with light oil. Lubricating the bolt holes, bolts and inner surface of the nuts with light oil is also recommended. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position. Make certain key is in place on the crankshaft.

Blade Mounting Torque

3/8" Dia. Bolt 375 in. lb. min., 450 in. lb. max.
5/16" Dia. Bolt 150 in. lb. min., 250 in. lb. max.

To insure safe operation of your unit, ALL nuts and bolts must be checked periodically for correct tightness.

DECK

The underside of the mower deck should be cleaned after each period of use as grass clippings, leaves, dirt and other matter will accumulate. This accumulation of grass clippings, etc., is undesirable as it will invite rust and corrosion and may cause an uneven discharge of grass clippings at the next cutting.

Pay particular attention to the area of the rear baffle and chain. Grass may accumulate in this area and must be cleaned out periodically to prevent possible problems with the clutch engagement.

The deck may be cleaned by tilting the mower forward or on its side and scraping clean with a suitable tool or by washing with a stream of water from a garden hose.

CAUTION

Do not direct the stream of water at a hot engine as damage to the engine may result. Be sure spark plug wire is disconnected.

ENGINE OIL

Check oil level before starting engine and after every 5 hours of operation.

ADD oil as necessary to keep level to full mark on dipstick.

Before removing dipstick, clean area around dipstick to prevent dirt from entering oil fill tube.

Engine should be in a level position when checking oil.

Change oil after first 5 hours of operation. Thereafter change every 25 hours. Change oil while engine is warm. Oil may be drained thru drain on bottom of engine. To drain completely, always place engine level when draining thru the bottom. Oil capacity 1-1/4 pints. See figure 25.

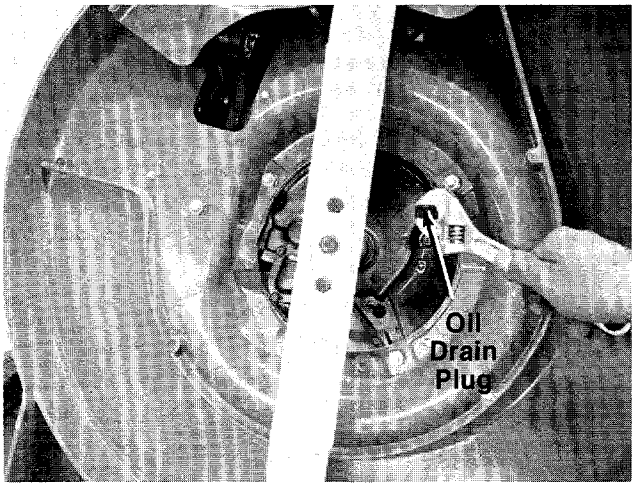


FIGURE 25.

AIR CLEANER

Clean air cleaner and re-oil element every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. See figure 26.

1. Remove screw.
2. Remove air cleaner carefully to prevent dirt from entering carburetor.
3. Take air cleaner apart and clean.
   a. WASH foam element in kerosene or a liquid detergent and water to remove dirt.
   b. DRY foam completely by wrapping and squeezing in a cloth.
   c. SOAK foam with engine oil. Squeeze to distribute and remove excess oil.
4. Reassemble parts and fasten to carburetor.

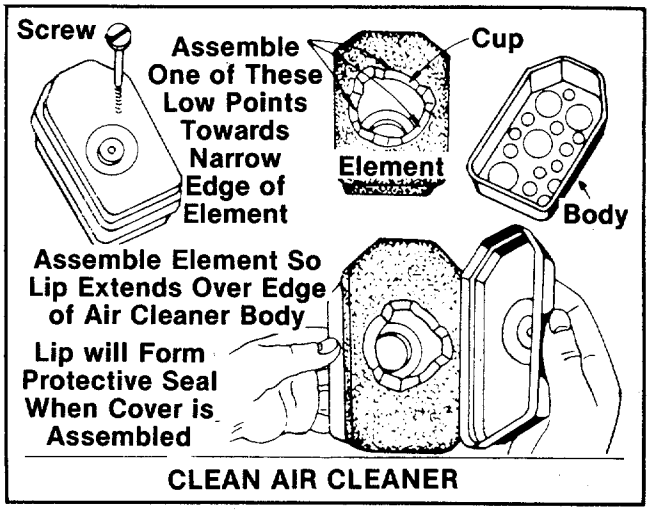

Screw
Assemble One of These Low Points Towards Narrow Edge of Element
Cup
Element
Body
Assemble Element So Lip Extends Over Edge of Air Cleaner Body
Lip will Form Protective Seal When Cover is Assembled
CLEAN AIR CLEANER

FIGURE 26.

SPARK PLUG

The spark plug should be cleaned (see figure 27) and the gap reset to a 0.030-inch clearance once a season (see figure 28). Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type.

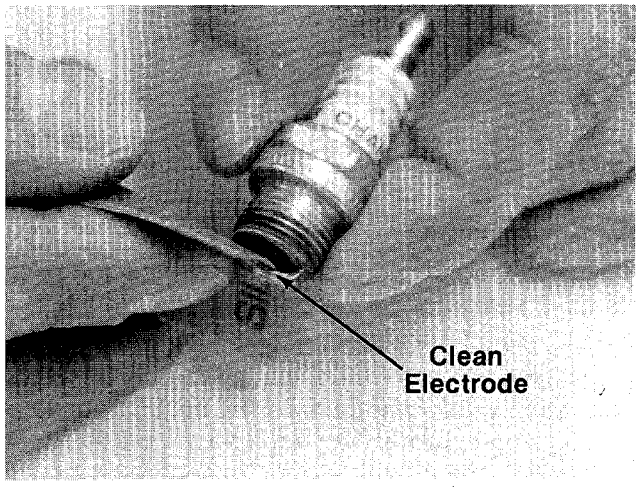


FIGURE 27.

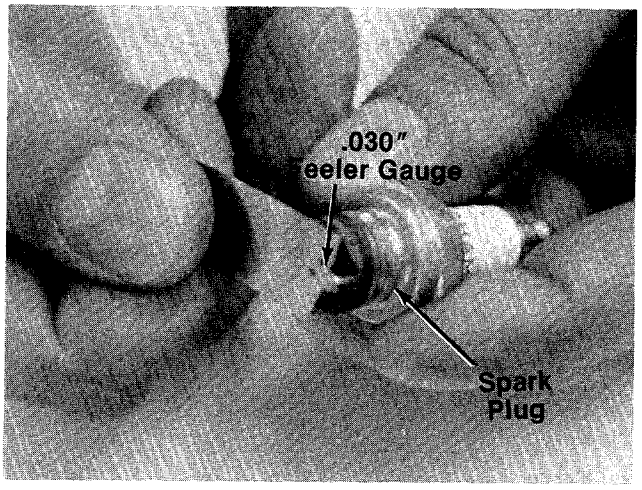


FIGURE 28.

NOTE

Whenever the spark plug is removed for cleaning, it is advisable to replace the spark plug gasket with a new gasket.

BELT REMOVAL AND REPLACEMENT

1. Remove the spark plug wire and ground it.
2. Drain the fuel tank or place a piece of plastic film beneath the cap to prevent gasoline leakage.
3. Remove the three screws holding the cable clip and belt guard (and idler assembly). See figure 29.

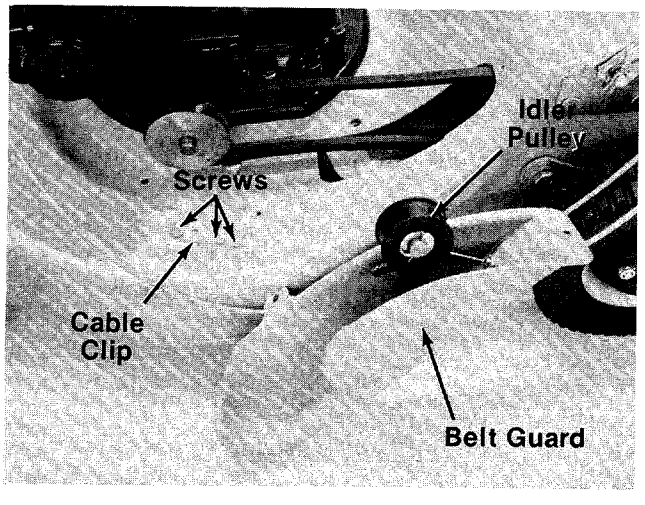


FIGURE 29.

4. Remove the belt from the idler as you lift off the belt guard.
5. Remove hex nut and lock washer from height adjustment lever on left side of mower as shown in figure 30.

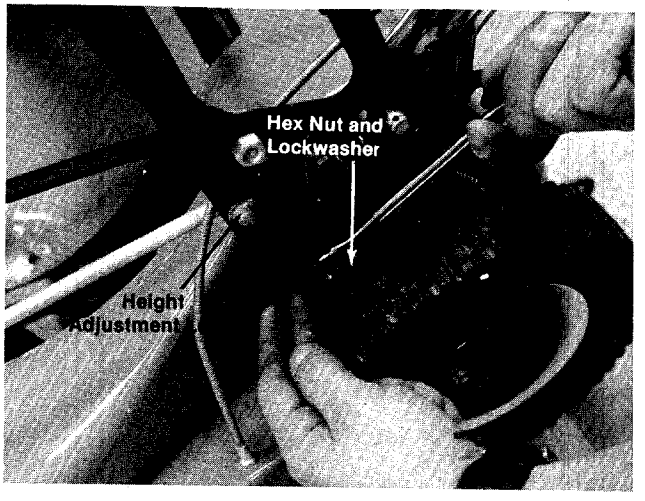


FIGURE 30.

6. Place the mower on its side.

WARNING

Make sure that the mower is secure and cannot tip over.

7. Remove two screws, nuts and lock washers. Remove one hex nut and lock washer from cover plate. See figure 31.

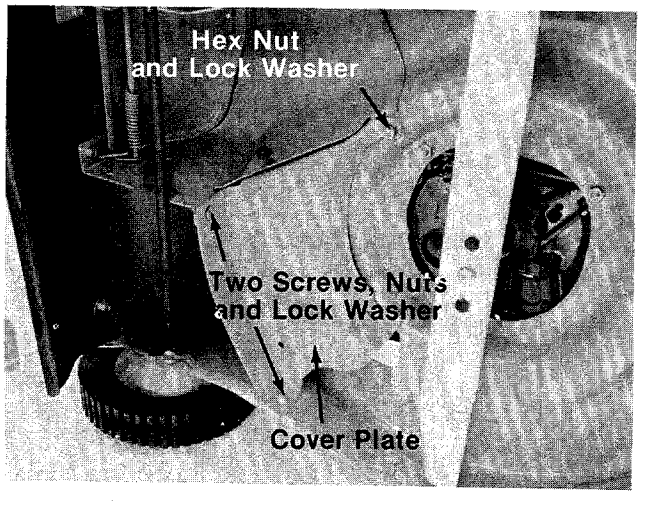


FIGURE 31.

8. Remove the cover plate. See figure 32.

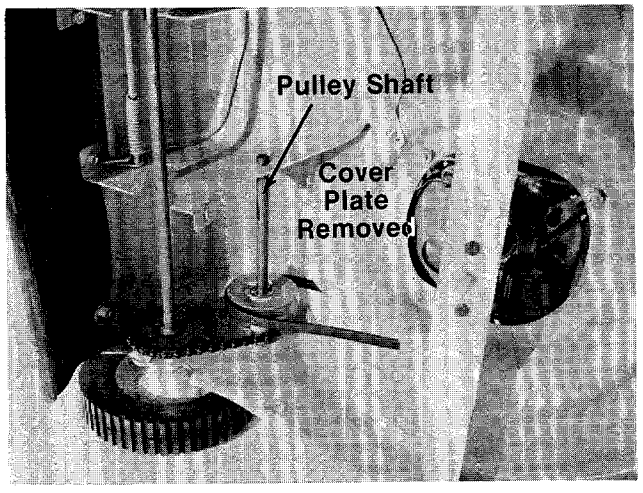


FIGURE 32.

9. Remove the master link from the chain. See figure 33.

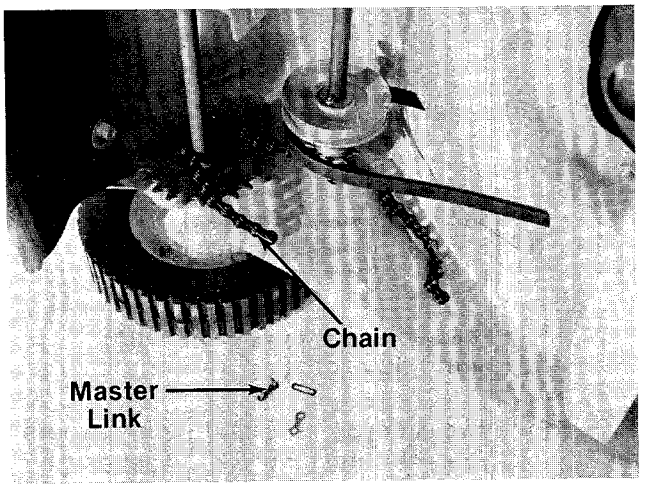


FIGURE 33.

10. Remove the chain, pulley shaft and belt. See figure 34.

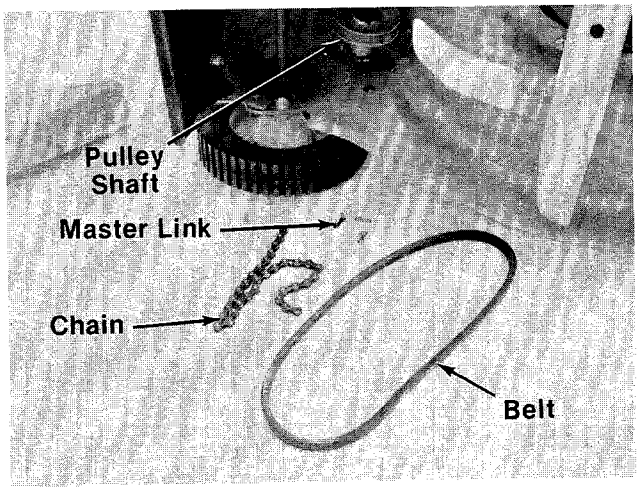


FIGURE 34.

11. Reassemble in reverse order with the new belt, making certain the idler pulley is under the belt. See figure 35.

NOTE

When reinstalling the chain, be sure the closed end of the master link clip faces in the direction of chain travel.

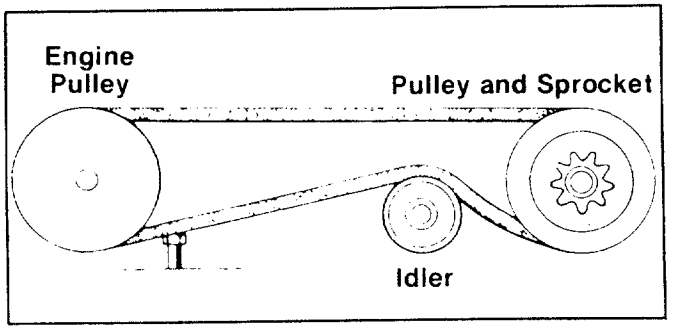


FIGURE 35.

HANDLE STORAGE

The handle can be stored in an upright position to take less space. Move hairpin cotters to outer hole on weld pins (see figure 3). Grasp the lower handle at the bottom and pull apart slightly. Tip the handle forward. It will lock in this position. Reverse this procedure to place the handle in the operating position.

The handle on this model may also be folded away completely for storage. See figures 36, 37 and 38.

1. Remove hairpin cotters from inner hole on weld pins on handle mount brackets. Place in outer hole.
2. Loosen the hand knobs on each side of the handle.
3. Pull outward on the bottom of each side of the lower handle, and push forward.
4. Fold the upper handle back and down, as shown.

To take the handle out of storage position, proceed as follows:

1. Lift the upper handle up and towards the rear.
2. Pull the handle back until it locks into the operator's position.
3. Tighten the two hand knobs securely.
4. Move the hairpin cotters to the inner hole on the weld pins.

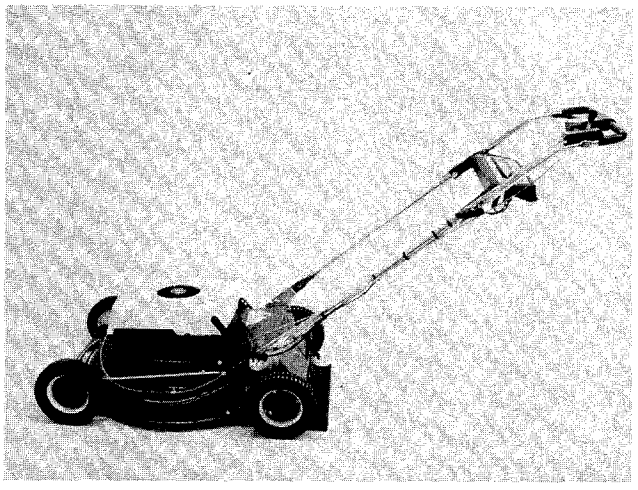


FIGURE 36.

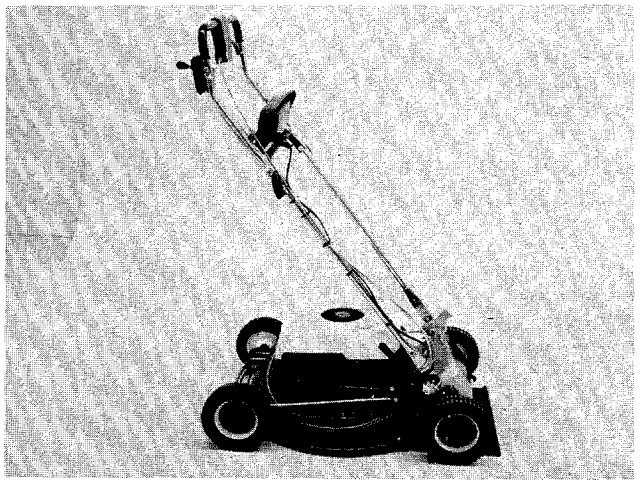


FIGURE 37.

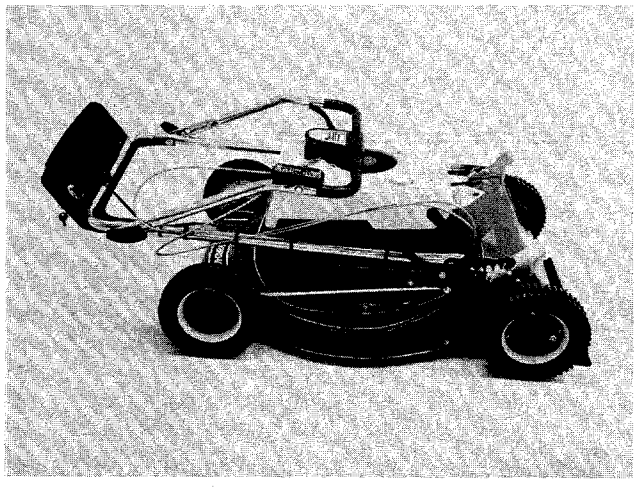


FIGURE 38.

OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, the following procedures are recommended:

1. Working outdoors, drain all fuel from the fuel tank. Use a clean dry cloth to absorb the small amount of fuel remaining in the tank. Then run the engine until all fuel in the carburetor is exhausted.

Do not drain fuel while smoking, or if near an open fire.

2. Drain all the oil from the crankcase (this should be done after the engine has been operated and is still warm). Refill the crankcase with clean new oil.
3. Disconnect the spark plug wire and remove the spark plug from the cylinder. Pour about 2 or 3 tablespoons of engine oil into the cylinder. Turn the engine over several times to spread out the oil. Replace the spark plug, but do not connect the wire.
4. Clean the engine and the entire mower thoroughly.
5. Lubricate all lubrication points.

NOTE

The use of any accessory on this Rotary Mower other than those manufactured by the mower manufacturer is **not** recommended.

WARNING

DO NOT operate the mower with the chute doors open unless the complete grass catcher is properly mounted on the mower.

WARNING

The mower shall not be operated without the protective shield on the rear of the mower in place.

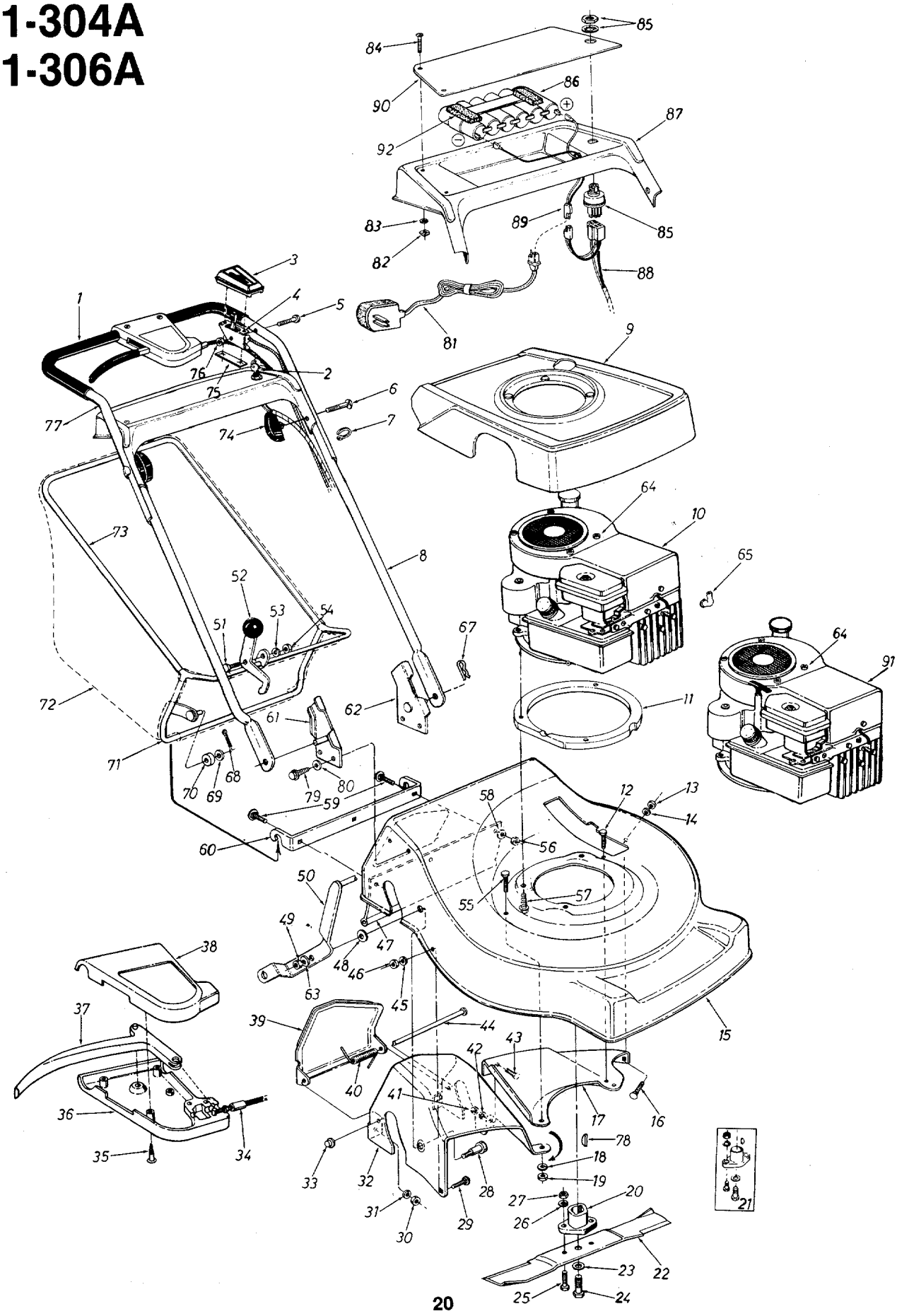
NOTE

Under normal usage bag material is subject to wear and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag No. 764-0167.

NOTES

121-304A
121-306A



121-304A
121-306A

PARTS LIST FOR MODELS 121-304A AND 121-306A (ELECTRIC START)

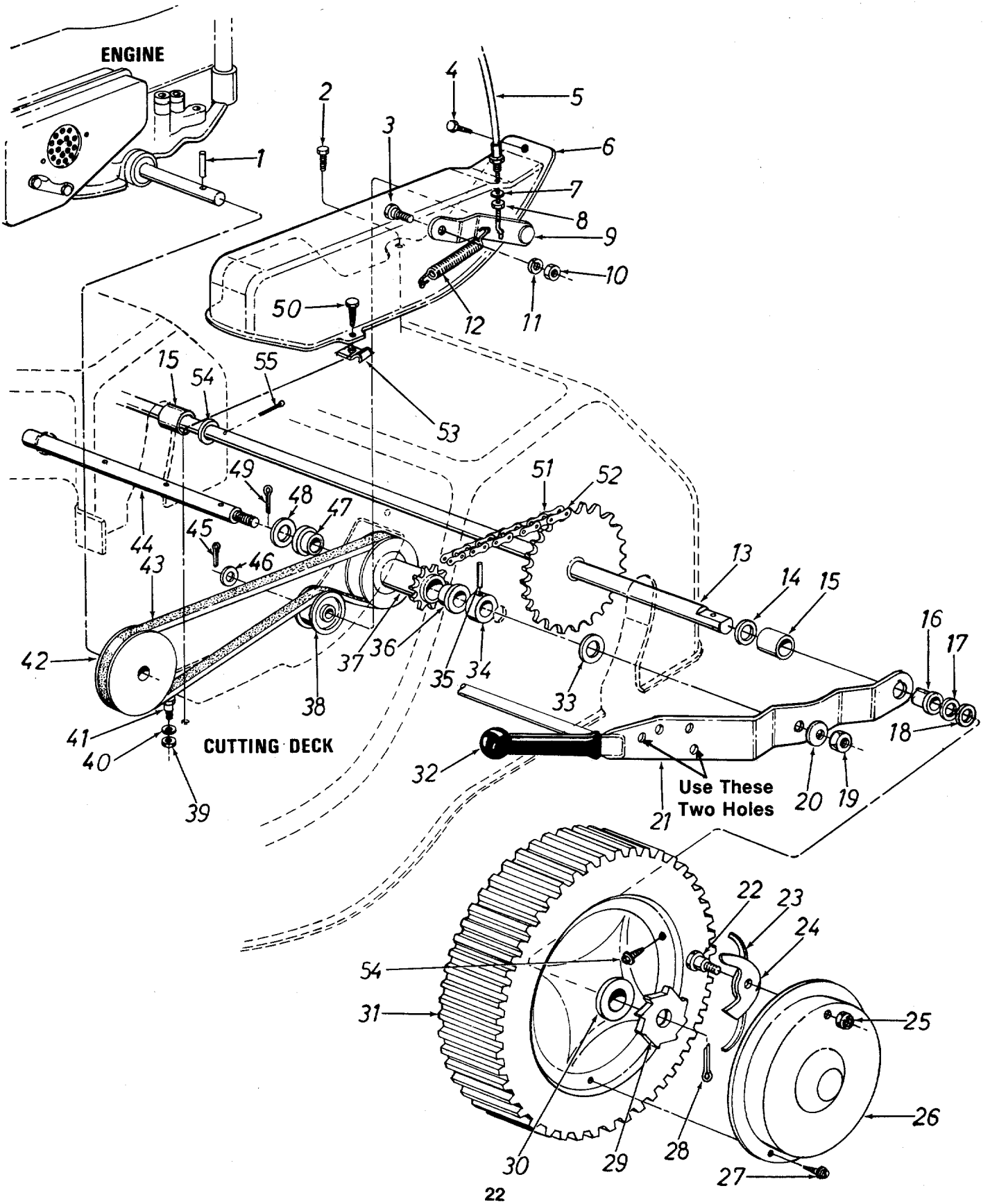
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	731-0145		Grip	
2	725-0201		Ignition Key (306 Only)	
3	731-0344		Plastic Label	
4	746-0350		Throttle Control Ass'y. Comp.	
5	710-0606		Hex Scr. ¼-20 x 1.50" Lg.*	
6	710-0405		Curved Carr. Bolt 5/16-18 x 1.75" Lg.	
7	726-0188		Cable Tie	
8	749-0375		Lower Handle	
9	731-0303		Engine Shroud Ass'y.	
10	—		Engine B & S 4 H.P. (Electric Start)	
11	13773		Engine Mount Cover	
12	710-0642		Hex Wash. Self-Tap Scr. ¼-20 x .75" Lg.*	
13	712-0287		Hex Nut ¼-20 Thd.*	
14	736-0329		L-Wash. ¼" Scr.*	
15	13401	—462	20" Deck Ass'y.	
16	710-0167		Carr. Bolt ¼-20 x .50" Lg.*	
17	13405	—462	Rear Chute Baffle—L.H.	
18	736-0329		L-Wash. ¼" Scr.*	
19	712-0287		Hex Nut ¼-20 Thd.*	
20	10769		Blade Adapter Kit	
21	10769		Blade Adapter Kit	
22	742-0123		20" Blade	
23	736-0217		L-Wash. 3/8" Scr.	
24	710-0459		Hex Scr. 3/8-24 x 1.50" Lg.*	
25	710-0117		Hex Scr. 5/16-24 x 1.00" Lg.*	
26	736-0119		L-Wash. 5/16" Scr.*	
27	712-0123		Hex Nut 5/16-24 Thd.*	
28	710-0252		Hex Scr. ¼-20 x .75" Lg.*	
29	710-0167		Carr. Bolt ¼-20 x .50" Lg.*	
30	712-0287		Hex Nut ¼-20 Thd.*	
31	736-0329		L-Wash. ¼" Scr.*	
32	13406	—462	Rear Chute Baffle—R.H.	
33	726-0106		Cap Speed Nut ¼" Rod	
34	746-0311		Clutch Control Cable	
35	710-0534		Slotted Oval Self-Tap Scr.	
36	731-0408		Rear Control Cover	
37	731-0406		Clutch Control Lever	
38	731-0407		Front Control Cover	
39	13407	—462	Chute Door	
40	732-0346		Torsion Spring	
41	712-0287		Hex Nut ¼-20 Thd.*	
42	736-0329		L-Wash. ¼" Scr.*	
43	710-0167		Carr. Bolt ¼-20 x .50" Lg.*	
44	738-0386		Hinge Pin .250 Dia. x 7.25" Lg.	
45	736-0329		L-Wash. ¼" Scr.*	
46	712-0287		Hex Nut ¼-20 Thd.*	
47	731-0432		Rear Flap Ass'y.	
48	736-0219		Bell-Wash. .400 I.D. x 1.13 Dia. x .040	
49	712-0342		Hex Jam Nut 3/8-16 Thd.*	
50	13615		Rear Wheel Pivot Brkt. Ass'y.	
51	738-0140		Shld. Bolt .437 Dia. x .180	
52	13435		Cam Lever Ass'y.	
53	736-0119		L-Wash. 5/16" Scr.	
54	712-0267		Hex Nut 5/16-18 Thd.	
55	710-0258		Hex Scr, ¼-20 x .62" Lg.*	
56	712-0271		Sems Nut ¼-20 Thd.*	
57	710-0654		Hex Wash. Hd. Self-Tap Scr. 3/8-16 x .88" Lg.	
58	736-0211		Fl-Wash. .281 I.D. x 1.25 O.D. x .060	
59	710-0703		Carriage Bolt ¼-20 x .75" Lg.	
60	14012		Grass Catcher Hitch Brkt.	
61	12296		Handle Brkt. Ass'y.	
62	14176		Handle Brkt. Ass'y.	
63	736-0105		Belleville Washer	
64	1549-029		Stud	
65	735-0639		Spark Plug Boot	
67	714-0104		Intern. Cotter Pin 5/16" Dia.	
68	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg.*	
69	736-0185		Fl-Wash. .406 I.D. x .749 O.D. x .063	
70	731-0430		Plastic Roller	
71	13924		Grass Catcher Lower Frame Ass'y.	
72	764-0167		Grass Bag	
73	749-0278		Grass Catcher Upper Frame	
74	09966		Knob Handle Ass'y.	
75	726-0134		Speed Nut Twin Type	
76	712-0107		Hex Cent. L-Nut ¼-20 Thd.	
77	749-0377		Upper Handle	
78	714-0365		#6 Hi-Pro Key .5132 x 5/8" Dia.	
79	710-0776		Hex AB Tap Scr. ¼-20 x .62" Lg.	
80	736-0329		L-Wash. ¼" Scr.	
81	725-0727		Battery Charger (306 Only)	
82	712-0142		Hex Mach. Scr. Nut #8-32 Thd. (306 Only)	
83	736-0168		External L-Wash. #8 I.D. (306 Only)	
84	710-0783		Hex Wash. Hd. Slotted Scr. #8-32 x .38" Lg. (306 Only)	
85	725-0267		Ignition Switch (306 Only)	
86	725-0726		Battery Pack (306 Only)	
87	731-0504		Handle Panel (306 Only)	
88	725-0724		Wire Harness (306 Only)	
89	725-0725		Battery Pack Lead (306 Only)	
90	14222		Battery Plate (306 Only)	
91	—		Engine B & S 4 H.P. (Pull Start)	
92	722-0135		P.C.V. Foam Strips (306 Only)	

(462—Red Flake)

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

When ordering parts, if color or finish is important use the appropriate color code shown above. (e.g. Red Flake Finish—13401 (462).)

121-304A
121-306A



121-304A
121-306A

PARTS LIST FOR MODELS 121-304A AND 121-306A (ELECTRIC START)

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	715-0105		Spring Pin Roll 3/16 Dia. x 1.50	
2	710-0642		Hex Wash. S. Tap Scr. ¼-20 x .75" Lg.	
3	738-0255		Shld. Scr. .375 Dia. x .171	
4	710-0456		Hex Drilling Scr. #10 x .50" Lg.	
5	746-0311		Clutch Control Cable	
6	12308	—462	Belt Cover	
7	736-0329		L-Wash. ¼" Scr.*	
8	712-0298		Hex Jam Nut ¼-20 Thd.*	
9	13415		Idler Brkt. Ass'y.	
10	712-0287		Hex Nut ¼-20 Thd.*	
11	736-0329		L-Wash. ¼" Scr.*	
12	732-0357		Extension Spring .33 O.D. x 1.12 Lg.	
13	11866		Rear Shaft Ass'y.	
14	1540-086		Fl-Wash. .510 I.D. x 1.00 O.D. x .125	
15	750-0190		Spacer .70 I.D. x .88 O.D. x 1.00" Lg.	
16	738-0142		Flange Brg. .503 I.D.	
17	1540-086		Fl-Wash. .510 I.D. x 1.00 O.D. x 1.25	
18	1540-086		Fl-Wash. .510 I.D. x 1.00 O.D. x 1.25	
19	712-0342		Hex Jam Nut 3/8-16 Thd.	
20	736-0105		Bell-Wash. .400 I.D. x .88 O.D. x .060	
21	13615		Rear Wheel Pivot Brkt. Ass'y.	
22	738-0137		Shld. Scr. .342 Dia. x .268	
23	10622		Spring Nylon	
24	748-0188		Pawl	
25	712-0219		Elastic Stopnut ¼-20 Thd.	
26	10647	—452	Hub Cap	
27	710-0227		Hex Wash. Hd. AB Tap Scr. #8 x .50" Lg.	
28	714-0115		Cotter Pin 1/8 Dia. x 1.00" Lg.*	
29	748-0187		Ratchet	
30	741-0262		Fortiflex Bearing	
31	734-0880		Wheel Ass'y. Comp.—Rear	
32	720-0143		Grip	
33	736-0219		Bell-Wash. .400 I.D. x 1.13 O.D. x .040	
34	750-0387		Spacer .505 I.D. x .88 O.D. x .440	
35	715-0120		Spring Pin Roll 3/16 Dia. x 1.00" Lg.	
36	741-0248		Flange Brg. .503 I.D.—Plastic	
37	756-0191		Pulley w/9 Tooth Sprocket Ass'y.	
38	756-0192		Plastic Flat Idler	
39	712-0267		Hex Nut 5/16-18 Thd.*	
40	736-0119		L-Wash. 5/16" Scr.*	
41	738-0140		Shld. Scr. .437 Dia. x .180	
42	756-0115		Engine Pulley	
43	754-0935		"V"-Belt ½" x 31" Lg.	
44	738-0385		Pulley Shaft	
45	714-0115		Cotter Pin 1/8 Dia. x 1.00" Lg.*	
46	736-0160		Fl-Wash. .531 I.D. x .930 x .050	
47	741-0248		Flange Brg. .503 I.D.	
48	736-0160		Fl-Wash. .531 I.D. x .930 x .050	
49	714-0115		Cotter Pin 1/8 Dia. x 1.00" Lg.*	
50	710-0599		Hex Wash. Self-Tap Scr. ¼-20 x .50" Lg.*	
51	713-0144		#48 Chain ½" Pitch x 31 Links	
52	713-0122		#48 Master Link ½" Pitch	
53	12894		Cable Clip	
54	710-0200		Hex Wash. Hd. Self-Tap Scr. Type "A" #8 x .50" Lg.	

*For faster service, obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

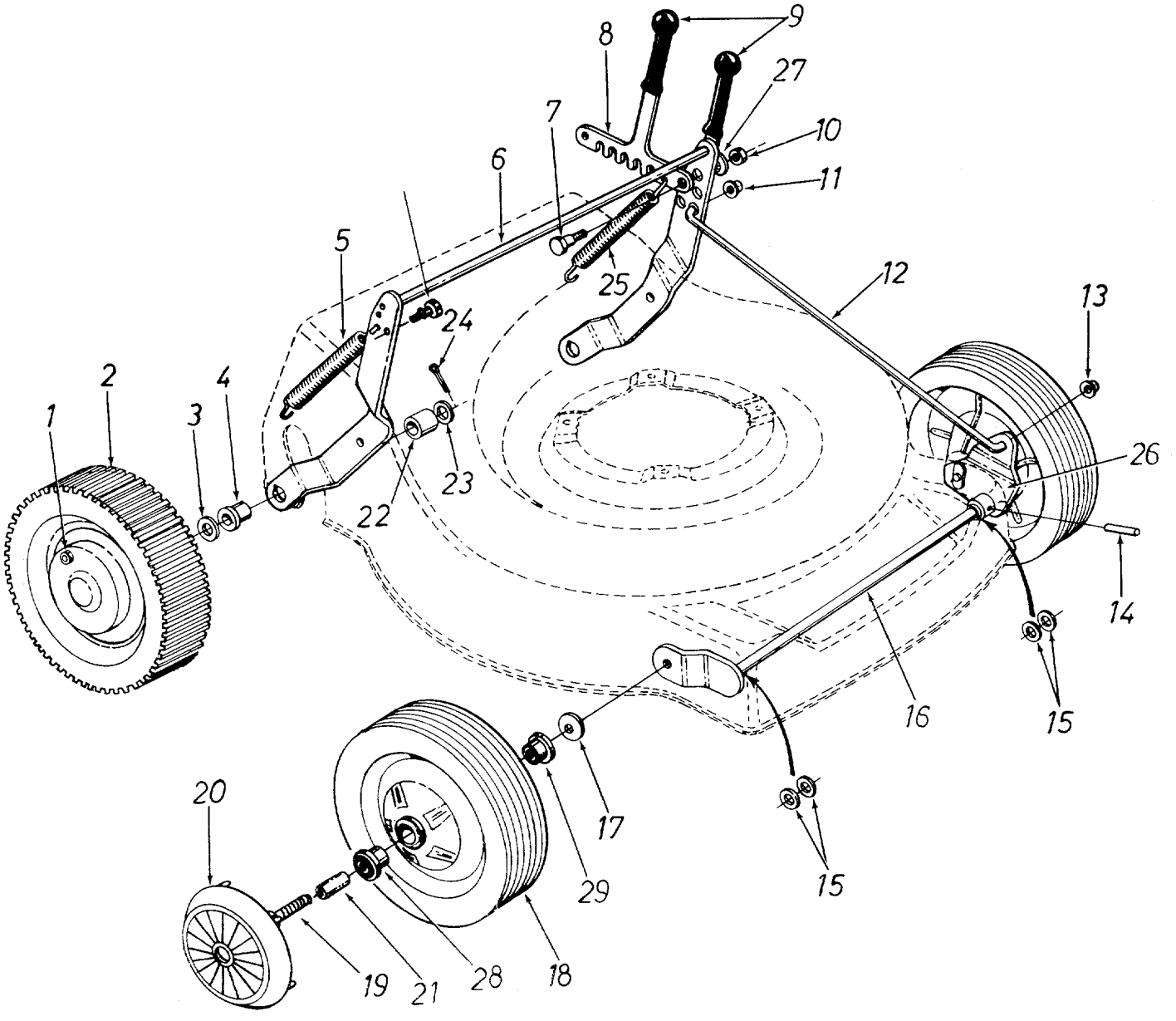
(462—Red Flake) When ordering parts if color or finish is important, use the appropriate color code shown at left. (e.g. Red Flake Finish—13401 (462).)

NOTE: The engine is not under warranty by the mower manufacturer . . . If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

NOTE

This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

121-304A
121-306A



121-304A
121-306A

PARTS LIST FOR MODELS 121-304A AND 121-306A (ELECTRIC START)

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	712-0219		Elastic Stop Nut ¼-20 Thd.	
2	734-0538		Rear Wheel Ass'y. 8 x 1.75	
3	736-0160		Fl-Wash. .510 I.D. x .930 O.D. x .050	
4	748-0142		Flange Brg. .503 I.D.	
5	732-0352		Extension Spring .50 OD. x 4.25	
6	13615		Rear Wheel Pivot Brkt. Ass'y.	
7	738-0140		Shld. Bolt. .437 Dia. x .180	
8	13419		Height Adjusting Lever	
9	720-0143		Grip Black	
10	712-0267		Hex Nut 5/16-18 Thd.*	
11	726-0135		Push Cap 5/16" Rod	
12	747-0248		Linkage Rod .31 O.D. x 20.75" Lg.	
13	726-0135		Push Cap 5/16" Rod	
14	715-0120		Spring Pin Roll 3/16" Dia. x 1.00" Lg.	
15	1540-086		Fl-Wash. .510 I.D. x 1.00 O.D. x .125	
16	13624		Wheel Axle Brkt. Ass'y.	
17	736-0105		Bell-Wash. .400 I.D. x .88 O.D. x .060	
18	734-0643		Front Wheel Ass'y. Comp.	
19	710-0427		Hex Scr. 3/8-16 x 2.00" Lg.*	
20	731-0354		Hub Cap	
21	750-0434		Spacer	
22	750-0190		Spacer .70 I.D. x .88 O.D. x 1.00" Lg.	
23	736-0160		Fl-Wash. .510 I.D. x .930 O.D. x .050	
24	714-0111		Cotter Pin 3/32" Dia. x 1.00" Lg.*	
25	732-0352		Extension Spring .50 O.D. x 4.25	
26	12871		Front Wheel Brkt. Ass'y.	
27	736-0119		L-Wash. 5/16" Scr.*	
28	741-0267		Ball Bearing 3/8" I.D.	
29	741-0484		Ball Bearing 1/2" I.D.	
30	735-0199		Rubber Bumper	

*For faster service obtain standard nuts and bolts locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

(462—Red Flake) When ordering parts, if color or finish is important, use the appropriate color code shown at left. (e.g. Red Flake Finish—13401 (462).)

The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines — Gasoline."

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, part numbers, description of parts and the quantity of each part required.

BRIGGS AND STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm Check the yellow pages of your telephone directory under the listing **Engines—Gasoline,** Briggs & Stratton or Tecumseh Lauson.

NOTE: If any parts are found to be missing or defective upon assembly of this unit, write to advise the factory so that immediate replacement can be made.

ALABAMA	**BIRMINGHAM**	
Auto Electric & Carburetor Co.	2625 4th Ave. S.	35233
ARKANSAS	**FORT SMITH**	
Mity Mite Motors, Inc.	4515 S. 16th St.	72901
	NORTH LITTLE ROCK	
Sutton's Lawn Mower Shop	Rt. 4, Box 368	72117
CALIFORNIA	**PORTERVILLE**	
Billious	75 North D Street	93257
	SAN FRANCISCO	
J.W. Jewett Co.	981 Folsom St.	94107
COLORADO	**DENVER**	
Spitzer Industrial Products Co.	Box 59, 43 W. 9th Ave.	80201
FLORIDA	**JACKSONVILLE**	
Radco Distributors	4909 Victor St. Box 5459	32207
	OPA LOCKA	
Small Eng. Dist.	2351 N.W. 147th St.	33054
GEORGIA	**EAST POINT**	
East Point Cycle & Key	2834 Church St.	30344
ILLINOIS	**LYONS**	
Keen Edge Co.	8615 Ogden Ave.	60534
INDIANA	**ELKHART**	
Parts & Sales Inc.	2101 Industrial Pkwy.	46514
IOWA	**DUBUQUE**	
Power Lawn & Garden Equip.	2551 J.F. Kennedy	52001
LOUISIANA	**NEW ORLEANS**	
Suhren Engine Co.	8330 Earhart Blvd.	70118
MARYLAND	**TAKOMA PARK**	
Center Supply Co.	6867 New Hampshire Ave.	20012
MASSACHUSETTS	**SPRINGFIELD**	
Morton B. Collins Co.	300 Birnie Ave.	01107
MICHIGAN	**LANSING**	
Lorenz Service Co.	2500 S. Pennsylvania	48910
	MOUNT CLEMENS	
Power Equipment Dist.	36463 South Gratiot	48043
MINNESOTA	**HOPKINS**	
Hance Distributing Inc.	420 Excelsior Ave. W.	55343
MISSISSIPPI	**BILOXI**	
Biloxi Sales & Service, Inc.	506 Caillavet St.	39533
MISSOURI	**KANSAS CITY**	
Automotive Equip. Service	3117 Holmes St.	64109
	ST. JOSEPH	
Ross-Frazier Supply Co.	8th and Monterey	64503
	ST. LOUIS	
Henzler, Inc.	2015 Lemay Ferry Road	63125
NEW JERSEY	**BELLMAWR**	
Lawnmower Parts Inc.	717 Creek Rd.	08030
NEW YORK	**CARTHAGE**	
Gamble Dist., Inc.	West End Ave.	13619
NORTH CAROLINA	**GOLDSBORO**	
Smith Hardware Co.	515 N. George St.	27530
	GREENSBORO	
Dixie Sales Company	335 N. Green	27402
OHIO	**CARROLL**	
Stebe's Mid-State Mower Supply	Box 366, 71 High St.	43112
	CLEVELAND	
Bleckrie, Inc.	7900 Lorain Ave.	44102
	WADSWORTH	
National Central	687 Seville Rd.	44281
	YOUNGSTOWN	
Burton Supply Co.	1301 Logan Ave. Box 929	44501
OKLAHOMA	**MUSKOGEE**	
Victory Motors, Inc.	605 S. Cherokee	74401
	OKLAHOMA CITY	
Forest Sales Inc.	6415 N. Olie	73116
OREGON	**PORTLAND**	
Kenton Supply Co.	8216 N. Denver Ave.	97217
PENNSYLVANIA	**CHESTER**	
Stull Equipment Corp.	742 W. Front St.	19013
	HARRISBURG	
EECO Inc.	4021 N. 6th St.	17110
	PHILADELPHIA	
Thompson Rubber Co.	5222-24 N. Fifth St.	19120
	PITTSBURGH	
Bluemont Co.	11125 Frankstown Rd.	15235
	PUNXSUTAWNEY	
Frank Roberts & Sons	R.D. 2	15767
TENNESSEE	**KNOXVILLE**	
Master Repair Service	2000 Western Ave.	37921
	MEMPHIS	
American Sales & Service, Inc.	3035-43 Bellbrook	38116
TEXAS	**DALLAS**	
Marr Brothers, Inc.	423 E. Jefferson	75203
	FORT WORTH	
Woodson Sales Corp.	1702 N. Sylvania	76111
	HOUSTON	
Bullard Supply Co.	2409 Commerce St.	77003
	SAN ANTONIO	
Catto & Putty, Inc.	414 Live Oak	78298
UTAH	**SALT LAKE CITY**	
A-1 Engine & Mower Co.	437 E. 9th St.	84111
VERMONT	**BURLINGTON**	
Vermont Hdwe. Co. Inc.	180 Flynn Ave.	05401
VIRGINIA	**ASHLAND**	
RBI Corp.	Lake Ridge Park 101 Cedar Run Dr.	23005
WASHINGTON	**SEATTLE**	
Bailey's Inc.	1414 14th Ave.	98102
WEST VIRGINIA	**CHARLESTON**	
Young's, Inc.	233 Virginia St., E.	25301
WISCONSIN	**MARSHFIELD**	
Power Pac	301 E. 29th St.	54449

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES:

1. **Replacement of Missing Parts** on new equipment.
2. **Replacement of Defective Parts** within the warranty period.
3. **Repair of Defects** within the warranty period.

All claims MUST be substantiated with the following information:

1. **Model Number** of unit involved.
2. **Date** unit was purchased or first put into service.
3. **Date of failure.**
4. **Nature of failure.**